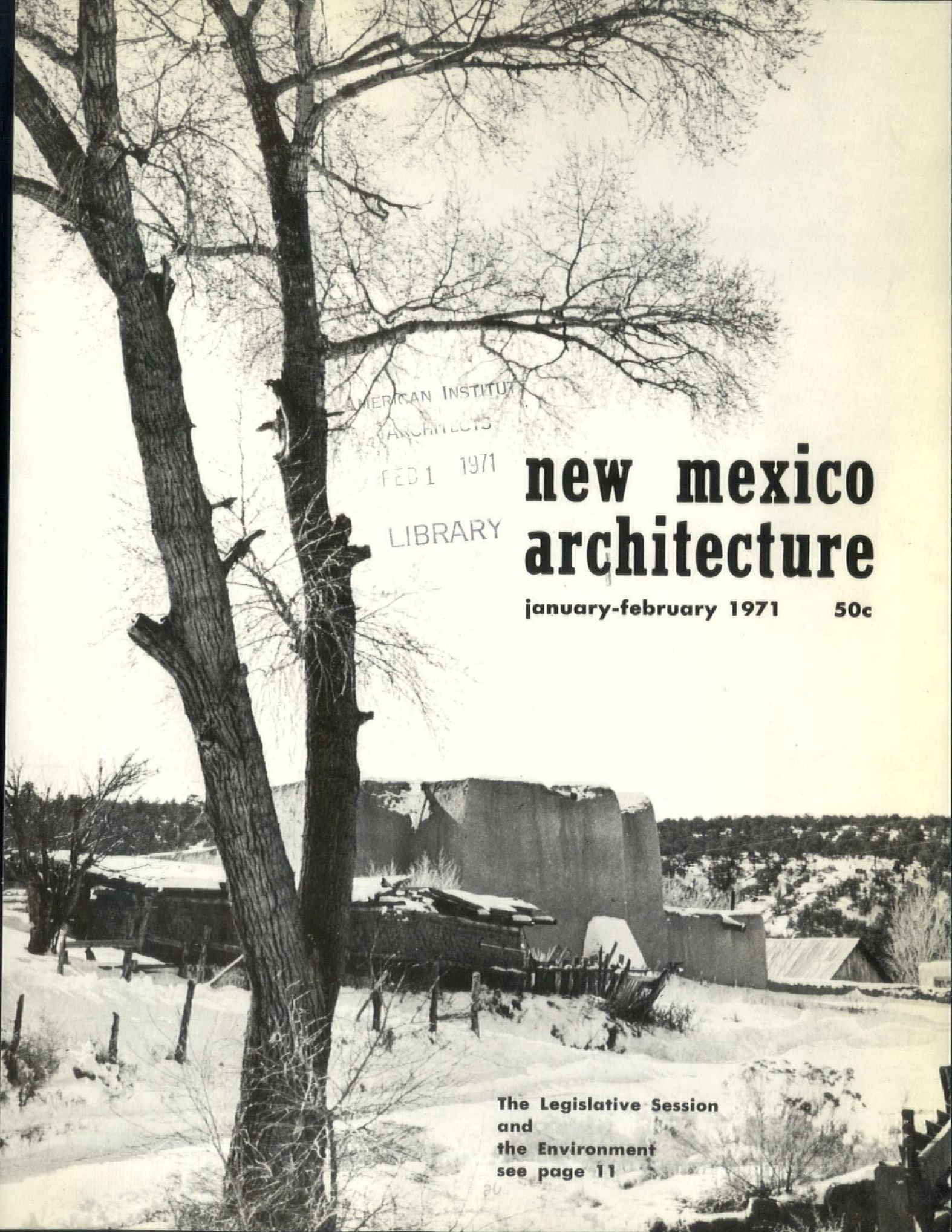

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The Legislative Session
and
the Environment
see page 11

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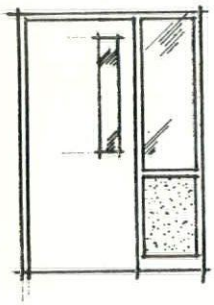

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NMA News 9

Environmental Legislation
in the 1971 Legislative Session 11
—Harvey Mudd II

Land Development in New Mexico 13
—is legislation necessary? — Karen Groening

The Stones of Laguna 16
—Louis Castillo
—an all Indian enterprise—

Index to Advertisers 22

*(Cover—"Las Trampas, New Mexico"—Photographer Harvey Mudd II)*

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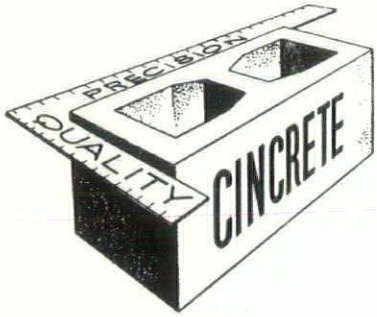


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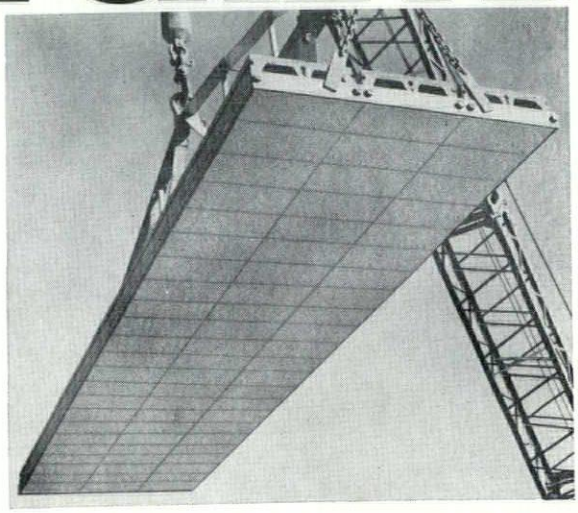

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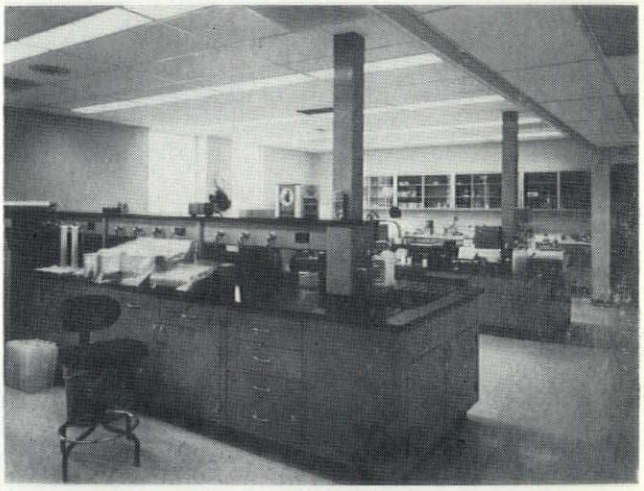

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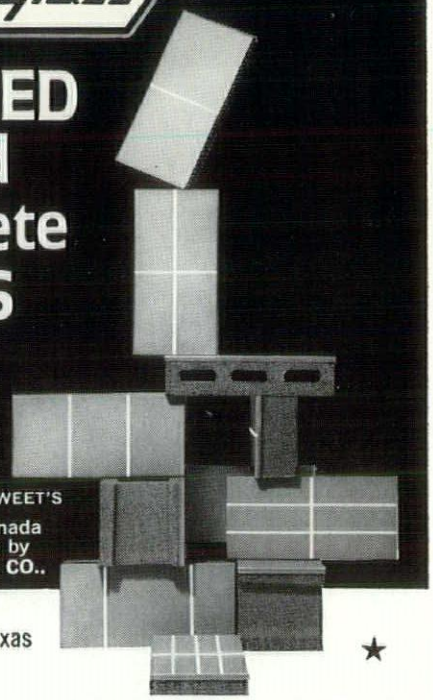

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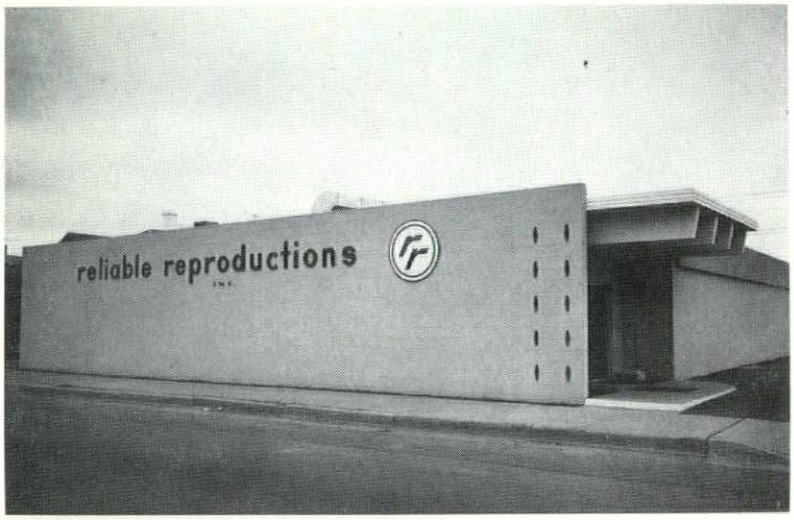


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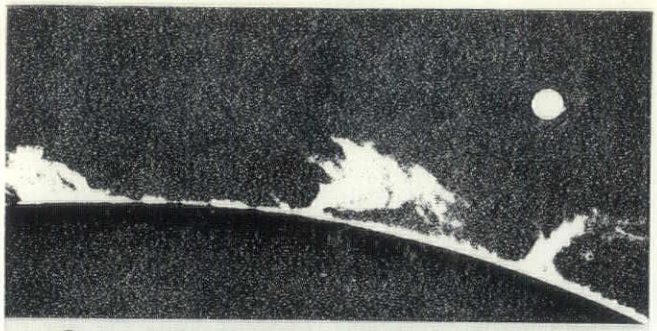

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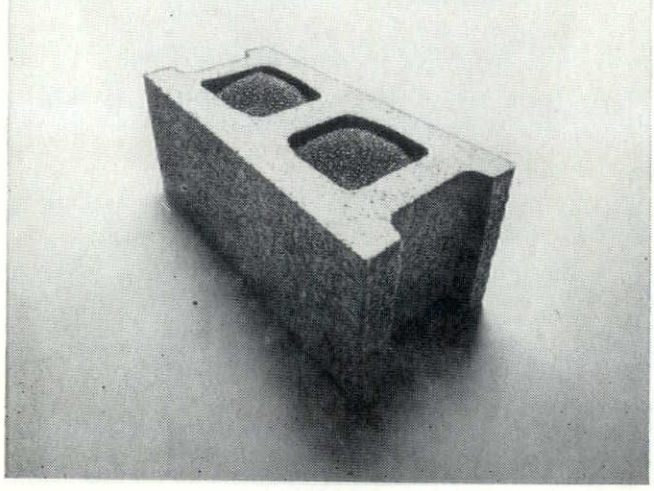
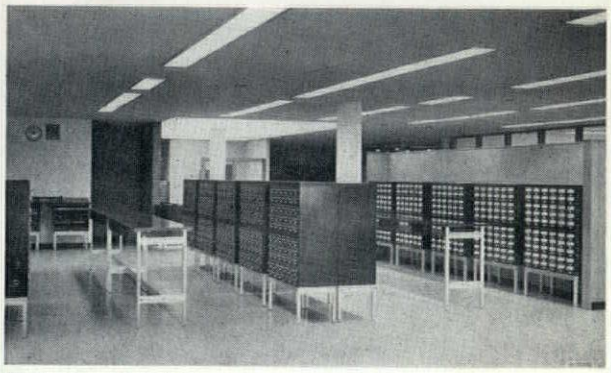




# FROM CONCEPT TO COMPLETION



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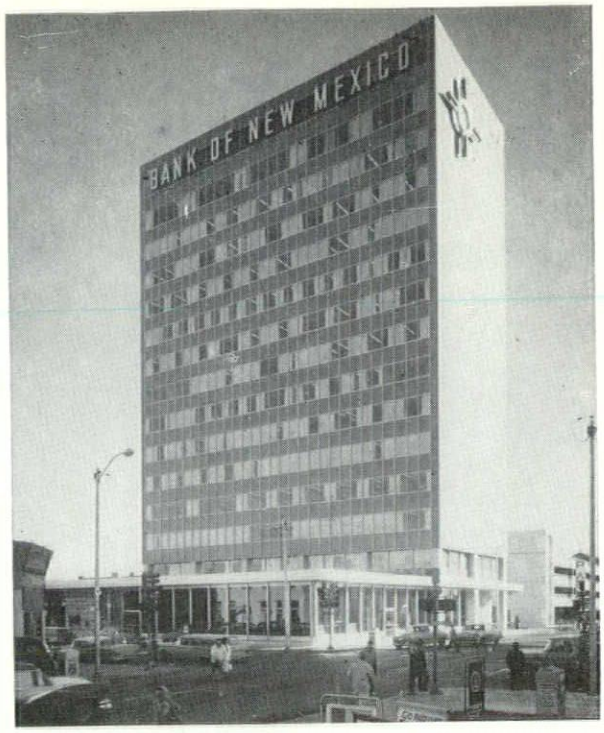


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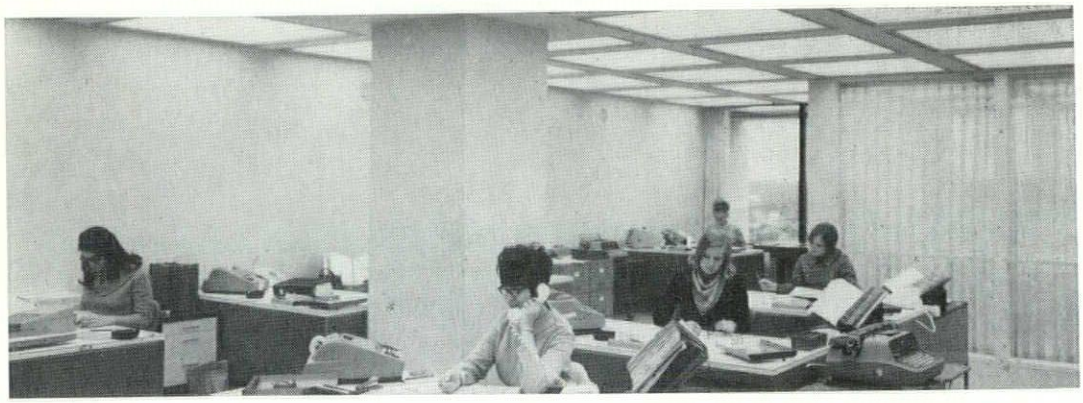

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## ADDITIONAL CREDIT SHOULD BE GIVEN

Dear Bain:

In re-reading your article entitled, "An Architectural Guide to Northern New Mexico" in the September-October, *New Mexico Architecture,* I am moved to make the following comment:

In mentioning certain post World War II buildings in Santa Fe, such as the Sears Building (1948); the Santa Fe Mid-High School (1950) and the Museum of International Folk Art (1952) my name alone is mentioned (in parenthesis) as the architect. Actually, I was the senior partner in a firm which at different times included Hugo Zehner, Edward O. Holien and William Buckley. Edward Holien especially was influential as a designer. He was a marvelous delineator and could take a mere sketch of an idea from me and develop it into an acceptable solution of the problem. Proof of his ability is the fine work he did, after I retired, on his own as Senior Partner of Holien and Buckley, established in 1960, which includes Popejoy Hall at the University of New Mexico and the Albuquerque Boys Academy, in Albuquerque, and St. John's College in Santa Fe.

John Gaw Meem, FAIA

## NMA RECEIVES NATIONAL AWARD

Publications in Connecticut, Kentucky, North Carolina, Louisiana, New Mexico, Maryland, California, The District of Columbia, and New York have been cited by the American Institute of Architects in its 1970 Component Editor's Publications Competition. The program is open to all editors of magazines and newsletters which are published by chapters, sections, state organizations, or regions of the national professional society of architects.

NEW MEXICO ARCHITECTURE magazine was awarded a Special Commendation "for its effective and scholarly focus on New Mexico's architectural heritage."

The awards were presented during the recent Component Editor's Conference at AIA headquarters in Washington, D. C. Nearly 30 editors, representing every section of the country, were in attendance. Moderator of the two-day meeting was John P. Conron, AIA, editor of NEW MEXICO ARCHITECTURE and chairman of the Component Editors' Liaison Group for the past two years.

## PAT WOOD ELECTED NMSA PRESIDENT

Earl Pat Wood, Santa Fe architect-engineer, was elected president of the New Mexico Society of Architects.

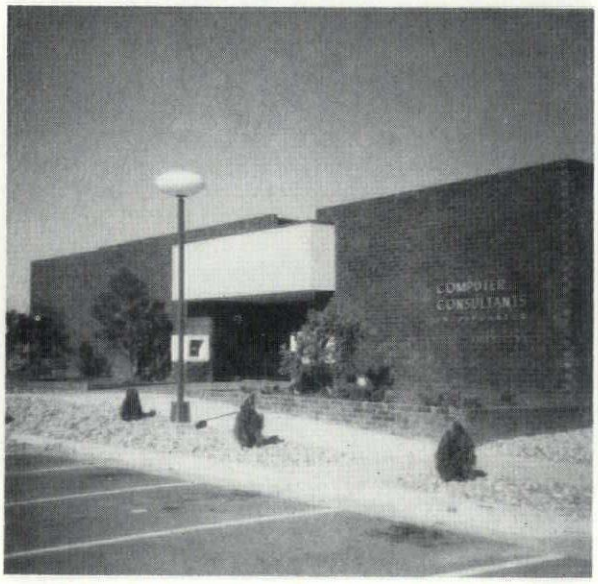
Also elected Saturday in Albuquerque at the quarterly board meeting of the association's board of directors were Charles Nolan, Alamogordo, vice president, and Van Dorn Hooker, Albuquerque, architect for the University of New Mexico, secretary-treasurer.

## AN APOLOGY

On page 2 of NMA, November-December 1970 issue, we gave an incorrect credit. The contractor for the Ampex Corporation Building should have been listed as the Lembke Construction Company. Our apologies to Charles Lembke, and to Ben Crego in whose advertisement a photograph of the Ampex Building appeared.

## AN NMA POST CARD CAMPAIGN

The New Mexico legislature is now in session. From the articles beginning on pages 11 and 13, it is abundantly clear that stronger environmental legislation is of urgent need for New Mexico. Cccordingly, NEW MEXICO ARCHITECTURE asks its readers to sign the enclosed post cards and send them off today. *JPC*

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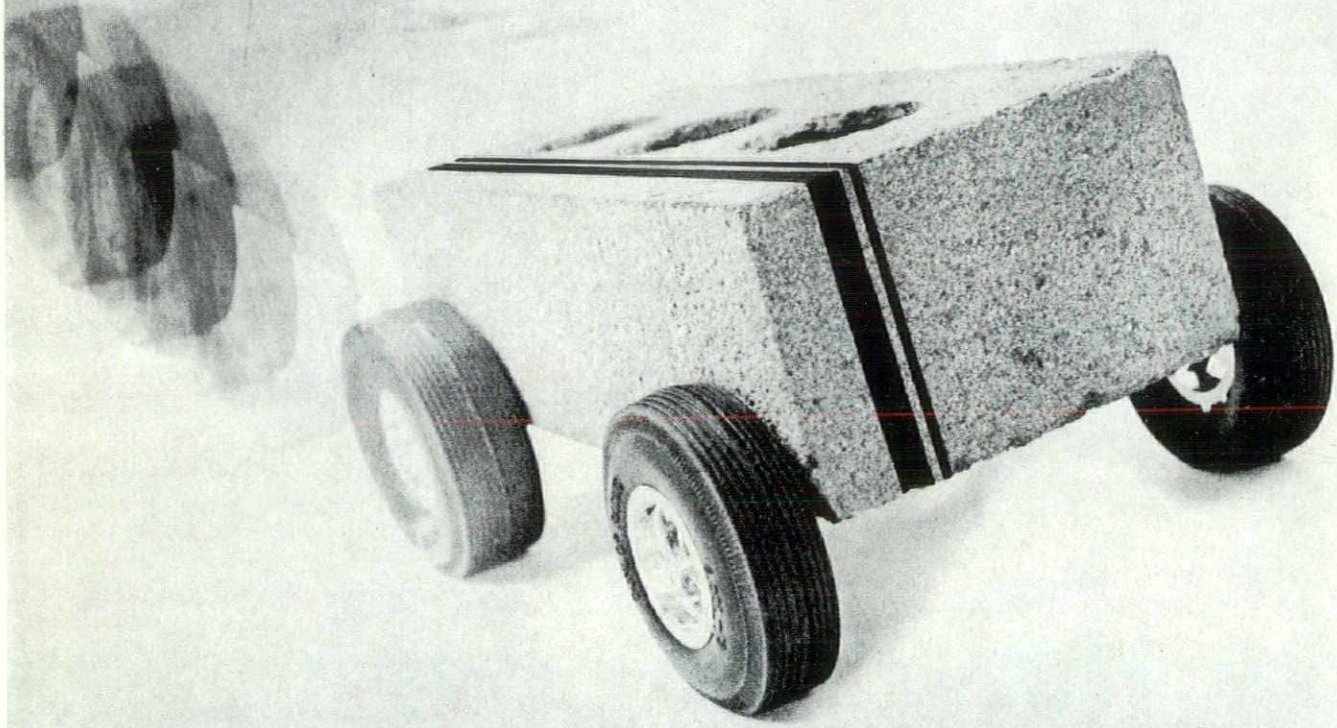

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# Environmental Legislation In The 1971 Legislative Session

## from New Mexico Citizens for Clean Air and Water by Harvey Mudd II

In the 60-day session beginning 19 January, 1971, a number of environmental issues will be raised and related bills introduced. Environmentally aware legislators, of which New Mexico has its fair share, backed by conservation groups such as the Sierra Club, New Mexico Citizens for Clean Air and Water, and the Central Clearing House, will be pushing for strengthened environmental law in areas of air and water pollution, subdivisions, timbering and mining, and will be pioneering totally new concepts (for New Mexico) in areas of basic rights in relation to the environment. Industry and land developers, and their sympathetic "booster" legislators will push for legislation which will make rapacious use of resources and the disposal of wastes easier and more profitable. What follows is a discussion of the types of environmentally related legislation which may be introduced in the coming session:

1) . . . To increase the per day fines for violations of the state's air and water pollution control regulations. The existing fine in New Mexico is "up to $1,000 per day." In the 1970 session, Senator Fred Gross' air pollution bill survived committee with a fine of up to $5,000 per day. The senate reduced the fine to $1,000 by a vote of 21 to 20; the leading figures in the move to reduce the fine were Alfonso Montoya, Ike Smalley, and Harold Runnels. To bring New Mexico's scale of fines into line with more progressive states which already understand the problems of industrial pollution (California, New York, Michigan and others), it will be necessary to provide for fines of up to $5,000 per day, or more. Anything smaller is ineffective in dealing with large polluters. President Nixon is recommending a $10,000 per day fine.

2) . . . To Establish a Department Of Health and Social Services Permit System through which all new industries in the state would have to operate. Such a system, which is supported by the Bernalillo County Environmental Health Department, would give the state considerable control over potential polluters before their activities become an air or water pollution problem. Under such a system, a new industry would have to have its pollution control methods approved by the Department of Health and Social Services before it could begin to operate. In 1970, the permit system was opposed by the Department of Health and Social Services (HSS), on the grounds of administrative difficulty. The support of HSS will be necessary to pass such a plan.

In areas outside the specifics of air and water pollution, an attempt will be made:

3) . . .To extend the authority of the State

**THE RAPE OF A FOREST**

*The Valle Grande is being logged indiscriminately by the New Mexico Timber Co. Notice the erosion of the road and the timber waste left to lie and rot, thus preventing effective re-forestation. Photograph is by John Young, an independent environmentalist from Los Alamos.*

FORESTRY COMMISSION OVER TIMBERING ACTIVITY ON PRIVATE LAND. As it stands now, the state forester can only require certain fire protection measures in timbering activity on private lands. This is inadequate; protection of watersheds must be included in the state forester's area of authority. Obviously the removal of trees on private land can cause flooding and stream degradation on private and public property beyond private boundaries. Had such authority existed, the irresponsible and destructive timbering by the New Mexico Timber Company in the Valle Grande could have been prevented.

4) . . . TO ESTABLISH A STRIP-MINING COMMISSION WHICH WOULD HAVE THE AUTHORITY TO REGULATE STRIP-MINING ACTIVITY IN THE STATE AND TO REQUIRE PERFORMANCE BONDS TO ENSURE THE RECLAMATION OF STRIPPED LAND. At present strip-mining is performed under regulation by the ancient (1872) mining law which allows what essentially is a "rape and run" operation. Strip-mining is the most destructive form of mining in that it destroys vast areas of top soil and creates water pollution and dust problems.

5). . . TO GIVE SOME MEASURE OF PROTECTION TO THE MOUNTAIN LION AND TO PREDATOR BIRDS SUCH AS HAWKS AND EAGLES. The mountain lion would become a game species, to be taken only under regulations set by the State Fish & Game Department. At present, the lion and raptorial birds are treated as varmints and can be killed by anyone under any circumstances. The predators are essential to the healthy functioning of wild life ecosystems. To the cattlemen, however, they mean occasional loss of stock and have therefore been persecuted, the outcome being their eventual extermination. Although stock losses are actually of low economic value, the cattle industry's opposition to any predator protection bill can be expected to be vigorous. Predator species protection is a new concept in New Mexico. We are, however, one of the few remaining western states that has enacted no measure of mountain lion protection.

In the broad area of general environmental legislation, it is hoped than an attempt will be made:

6) . . . TO DRAFT AN ENVIRONMENTAL BILL OF RIGHTS WHICH WILL BE PRESENTED TO THE VOTERS AS A CONSTITUTIONAL AMENDMENT AT THE NEXT GENERAL ELECTION. Such an amendment, establishing the citizens' basic right to a clean, balanced and healthy environment, would give clear constitutional grounds for future legal action against polluters. Industry can be expected to oppose such an amendment as being dangerous to their "basic right" to pursue a profit. In New York, Illinois and other states, an Environmental Bill of Rights is already a part of the state constitution.

7) . . . TO INTRODUCE LEGISLATION ENABLING A CITIZEN TO LEGALLY APPREHEND POLLUTING PUBLIC AGENCIES OR PRIVATE INDUSTRIES AND ESTABLISHING THE STANDING OF SUCH CITIZEN ACTION BEFORE A COURT OF LAW. The legal problem of standing is basic if the people are to protect what is left of the natural world and are to have clean air and water. At this time, no party, individual or group of citizens, can sue a polluter (or state regulatory agency) for damages or obtain injunctive remedy unless the court recognizes that party's right to sue. Traditionally, the courts have been reluctant to give standing to any party who has not suffered DIRECT economic or physical harm from the offending activity—i.e., your shop window or your leg had to have been broken. To adequately protect against environmental degradation, or the potential health hazards of industrial activity, a citizen or class of citizens, must have recourse to the courts. The right of sure access to the courts must be established by legislation.

8) . . . TO ESTABLISH A STATE ENVIRONMENTAL PROTECTION AGENCY INDEPENDENT OF THE HEALTH & SOCIAL SERVICES. Establishment of such an agency would make the environmental protection activities of the state more readily visible to the citizen and would make obvious any atempt by industry's sympathetic legislators to cut the environmental budget.

Legislation affecting subdivision regulations is a major area of concern to environmentalists and is discussed in a separate article in this issue.

Industry can be expected to request tax rebates for pollution control equipment. Environmentalists

## A NEWS FLASH

re: Land Development--

See pages 13-14

As NMA goes to press, we learn of the acceptance of the Amrep Corporation's master plan for the Eldorado satellite-city by the Santa Fe County Commissioners. The Chairman of the County Planning Commission had asked for delay pending further evaluation of water resources on the development site. However, Amrep's vice president, Sol Friend, told the commissioners that his corporation has spared no expense on water studies at Eldorado. Further, he claimed that the Zane Spiegel report is a "straw issue." He said: "Amrep has five to ten million dollars to assure that water is going to be there."

We wonder if a water pipeline to Eldorado from a northern Canada watershed might not be the place to spend those ten millions of dollars, and thus "assure that water is going to be there." *JPC*

*The unwanted aspens are pushed aside and are left to clutter the forest. The Duke City Lumber Company above El Rito.*

oppose such legislation on the grounds that cleaning up industrial waste is an ordinary cost of doing business which should be passed on to the consumer of the particular product. The tax rebate system passes the cost on to all the citizens of the state by reducing state tax revenues from the particular industry. For example, the users of the electricity produced at the Arizona Public Service Company plant at Farmington (the dominant consumers are the cities of Los Angeles and Phoenix) should pay the cost of the pollution control equipment rather than the people of the State of New Mexico, which receives all of the pollution and only a small part of the electricity.

Industry's legislators can be expected to work behind the scenes to cut appropriations for those agencies that have the authority to police and regulate industry. Good laws are worthless without the wherewithall to administer them.

Good environmental legislation can only be passed if the people of New Mexico demand it. Active participation by all concerned citizens is essential if our expanding consumer economy is to stabilize and learn to operate within the finite limitations of available resources, water, air and space. In the 1971 session, there is ample opportunity to do some significant house-training of that unruly, avaricious, messy animal — man. —*Harvey Mudd II*

# LAND DEVELOPMENT IN NEW MEXICO--IS LEGISLATION NECESSARY?

## From The Central Clearing House

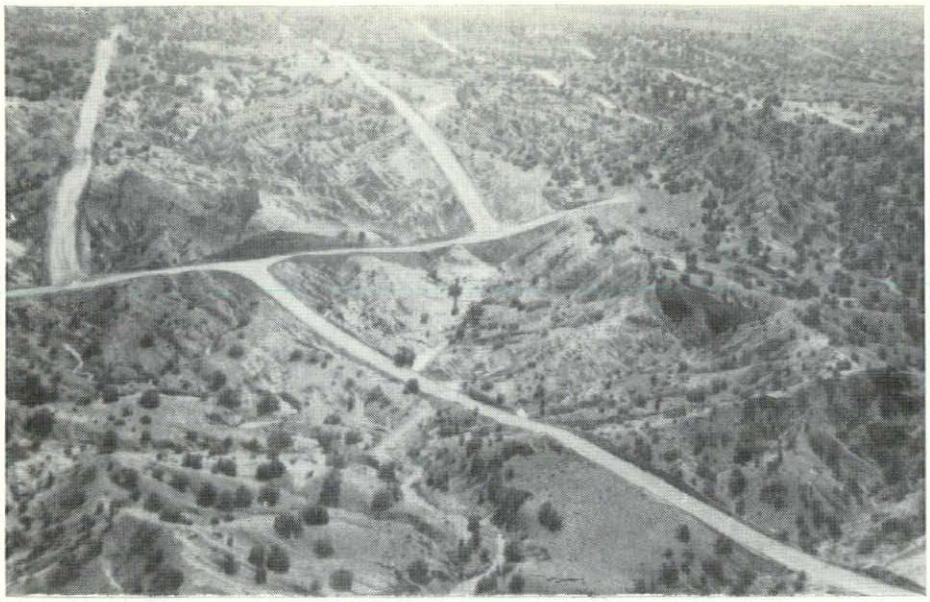
**by Karen Groening**

Economic development has continually been the largest question mark in the minds of New Mexico's legislators and investors. Tourists have easily found their way to the clear skies of this high semi-arid country. Artists found inspiration and endless imagery in the Indians' rich culture and the stark peace of the land. Gold, silver, and coal brought mining and wealth to the state until the earth was emptied. For a time, the boom in cattle and sheep ranching brought in tremendous wealth, and Las Vegas, the wool capitol, almost became the state capitol. In spite of all this activity, the state still does not have its feet on solid financial ground.

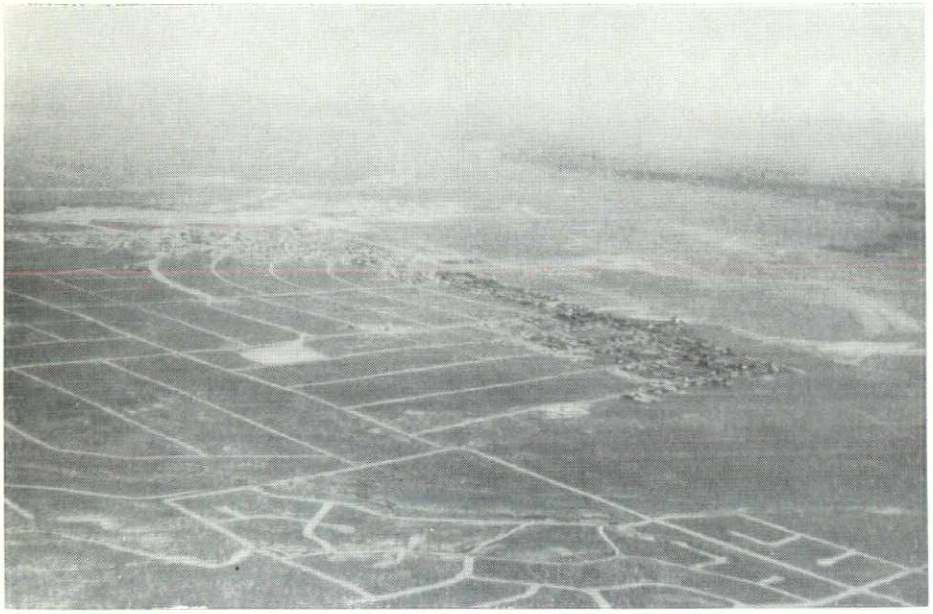
Now in the '70's land has suddenly become the premium. The over-grazed ranch acreage of New Mexico has the attention of Hollywood movie producers seeking new locations and real estate investors seeking new lands to subdivide. The two centers of population, Los Angeles and New York, are over-crowded, the air dirtied with carbon monoxide and industrial by-products, and the water table gradually lowering. The movement is outward, away, toward space. New Mexico is ideally situated in the path of progress. Readily available from north to south, New Mexican acreage sells for comfortable prices. Land development interests—Amrep, Great Western Cities, Southwest Land Corporation—have set up their sales offices not only in this state, but in New Jersey, Florida, Texas, New York, California, and buyers are lined up at the doors.

New Mexico law gives ready access for almost any kind of development. The Land Subdivision Act, passed in 1963, asks for the county commissioner's approval of a subdivider's plat before any land sales can take place. However, its emphasis is on fraudulent advertising and misrepresentation, which carries the penalty of a felony. It sets no standards for community development, only requiring a disclosure—that the buyer be notified of arrangements for street maintenance, availability of public utilities and water, and any financial encumbrances on the property. Water rights can be obtained simply by asking. The State Engineer's office traditionally provides three acre feet of water per year to individual home builders. Legally then, the subdivider has a free hand, and only the county commission stands as the potential stumbling block.

On the other side of the scene, behind the sales office, the reality of land development becomes clear and the danger of maintaining a "legal no-man's land" is apparent. In the end the buyer and the state itself actually become the developer. One



*Santa California City, an area near State Roads 84 and 96 in Rio Arriba County. The roads were constructed in 1970 with NO regard for drainage.*



*Rio Rancho Estate in Sandoval County just north of Albuquerque. There are 85,000 acres with roads cut and only 700 homes have been built. The subdivision stretches from Corrales to the Rio Puerco, a distance of about 20 miles.*

*Reference: Information Substantiating Need for Proposed Subdivision Regulations of the New Mexico Health and Social Services Department by John B. Wright.*

of the most disputed subdivisions, Amrep's Eldorado, is an excellent example of the immense problems this type of development can manifest. On 27,000 acres, southeast of Santa Fe, Amrep planners project a population of 68,000 on lots from one acre to over five acres in size. The intention of this plan, stated in the Amrep report, "Is to maintain conformance to the existing low density Santa Fe type development and to minimize the drain on natural resources." This is the extent of Amrep's involvement in community planning. All else is left in the buyer's hands. He is to install a septic tank, drill a well on his property, and contrive his own garbage disposal system. With a projected 18,000 homes, eventually this could mean 18,000 wells next to 18,000 septic tanks.

The problems inherent in using a well - septic tank system multiply quickly. Frank Bond, representative for the Central Clearing House on the recent Health & Social Services Study Committee on Subdivision Regulations, pointed out seepage as a primary concern. "An additional problem," explained Mr. Bond, "is the threat that a cone of depression may develop, for example; three wells are drilled on three adjoining lots and the cone begins to occur in the middle well; soon that well would begin to siphon off the other two wells." The geology of the area increases the problem further. Hydrologists say the Eldorado area has a granite substratum, and therefore has a very low permeability with no filtering capacity. It is highly probable that sewage waste could flow into a crack in the substratum and run down into the water table.

Water availability in Eldorado has been a much debated question. The main run-off in the Santa Fe area is toward the Rio Grande. A mini-

mal amount does drain toward the southeast plains from the Arroyo Hondo run-off, but the granite composition cannot retain much water. Zane Spiegel, a hydrologist with the State Engineer's office, estimated the amount of water available per year at 535 acre feet. Amrep's estimates range from 2,000 to 8,000 acre feet yearly!

The fundamental problems — water, sewage, solid waste and garbage disposal — do not confine themselves to one development. There are now 280 subdivisions throughout the state with enough land platted to accommodate an additional two million people. At this rate of development, in 2020 all of New Mexico will be subdivided. Eight thousand miles of road have been cut into the existing soil. Enough dust will be produced by wind and automobiles from these unpaved roads to blanket Albuquerque with over a foot of New Mexican soil. Water resources will be demanded at the rate of 29,200 acre feet per year, or 58% of the proposed Cochiti Reservoir. Sewage of 200 million gallons a day will require tripling of the sewage treatment facility in every town in the state. Solid waste will be generated at a rate of 6,000 tons per day, equalling a land fill site of 31,000 acres. This projection does not include the pressing problems of employment, schools, transportation (i.e. school buses and public transport), protection of agricultural lands, housing, congestion, etc. It entirely overlooks the strain on existing communities while the new settlements gather sufficient population to carry bonds to construct their own facilities.

New Mexico's undevelopment can no longer continue for better or for worse. Progress or change of some kind is imminent. The land is the real basis for this change, and how we develop its potential will determine whether we create new homes or new ghost towns. Therefore the land is a very precious commodity to be used with care and discretion. It is impossible to rely on county commissions to carry the burden without any funds for land use planning or state guidelines to provide a common working ground.

This is among the chief concerns of Representative James Koch (of Santa Fe County). "The problem is that the developers are only speculators. Eventually the state will have to take on the subdivision and do what the developer has not done," explained Rep. Koch. He is working on legislation which will:

1) limit the number of roads that can be graded and provide for a maintenance agreement with the county;
2) require community water and sewage systems and a method of solid waste disposal;
3) require proof that water rights have been obtained;
4) provide for fire protection;
5) set aside adequate open space;
6) require distribution of population and traffic in a way to preserve public health and welfare.

Brant Calkin, chairman of the Sierra Club's Rio Grande Chapter, feels the first question to ask is: how many people can New Mexico's resources support? "Environmental Services Division of Health and Social Services estimates, at the present rates of use, a total population of 1.5 million, 500,000 more than the present population. The Water Quality Control Division estimate is 800,000. This takes into consideration the fact that now we are drawing fossil water out of wells on the east side of the Sangre de Cristos—an exhaustible supply. Also, as a result of the inter-basin transfer from the San Juan-Chama Diversion Project, we are relying on water from Colorado. Certainly if we converted all water to residential use, the state could support twenty million," Mr. Calkin stated.

As an environmentalist, he sees specific areas which need legislation:

1) to grant the Department of Health and Social Services the power to enforce their environmental regulations over wells, septic tanks, solid waste disposal, sewage disposal.
2) to introduce control over individual wells—such that the State Engineer will only issue permits under certain conditions.
3) to classify state lands to optimum use — which will mean a survey of the state's resources.
4) to broaden the state's authority over land use so that the state may revise or review local plans.

William Lumpkins, a Santa Fe architect, would like to see a county-wide plan prepared. "I think we have to back up," said Mr. Lumpkins. His plan would:

1) "Exclude land from development which injects water into the subsurface, such as forest areas and pinon-covered areas. It is so constructed that it holds the snow and gives the soil a chance to absorb the water slowly. This important area must be protected. Anyone who removes the trees should be required to re-plant one for each one uprooted.
2) "Set aside farm lands. We must refuse to sacrifice any more of our food sources.
3) "Preserve natural drainage areas and flood plains, to maintain the soil rehabilitation process which nature has set up.
4) "Base population densities on the total water supply of the county. When densities are achieved, you must cut off further development."

It is to the benefit of environmentalists, architectural and construction interests, and future investors to protect rather than exploit, to enhance instead of degrade, to develop rather than corrupt their common ground. —*Karen Groening.*

# The Stones Of Laguna

**Text and Photographs By Louis Castillo**

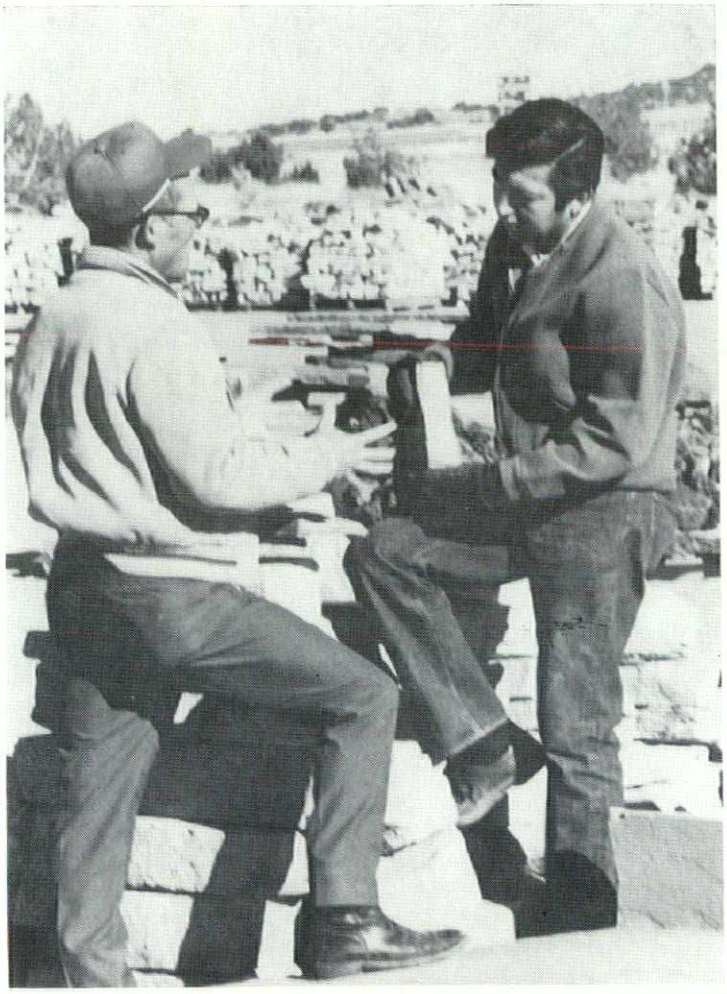
A new stone quarrying enterprise conceived, developed, owned and operated by the people of Laguna, gives the architects of New Mexico an extra indigenous building material from which to choose. Sandstone, onyx, conglomerates, and surface travertines are available in a wide range of colors and textures for structural walls, wall surfacing, and flooring. Stone chips of any size are available for terrazzo, exposed aggregate, and roofing. Complete sample kits can be had from Laguna Rock Enterprises.

Fourteen years ago Francis Smith got the idea that Laguna's rocky hills might become a very practical asset to the Tribe. Eventually the Tribal Council, led by Smith, proposed a plan to start a quarrying enterprise, along with an incentive work program, and submitted it to the Office of Economic Opportunity. The project was approved in July of 1969 and in December Laguna Rock Enterprises (L. R. E.) was launched, with Francis Smith as project manager. The first contract was signed in February of 1970.

L. R. E. is controlled and managed by a tribal corporation. Jake Abraham is now project manager, Lawrence Sarracino, sales manager; Charles Romero is bookkeeper; and Harvey Garcia is foreman of sixteen employees.

The eight quarries which are now in use are all in the same stone deposit which covers about twelve square miles and is more than 200 feet deep. Limestone, flagstone, and gravel products are the most widely used. Raw agate is sold largely as a ground cover and roof topping. When additional equipment is purchased, marbles will be available in white, rose-white, conglomerate, yellow, and a chocolate color. L. R. E. can now deliver its products up to fifty miles. Skilled Laguna workmen are available to do the masonry work if the client chooses.

The quarrying process begins with density and hardness tests made with carbon tipped drills. If the rock is suitable for building use, it is drilled and broken into boulders which bulldozers can move into a large common working area. Once the boulders are grouped, men with feather drills and chisels split the boulders into portions which can be easily moved to the Old Laguna site where the stone is dressed



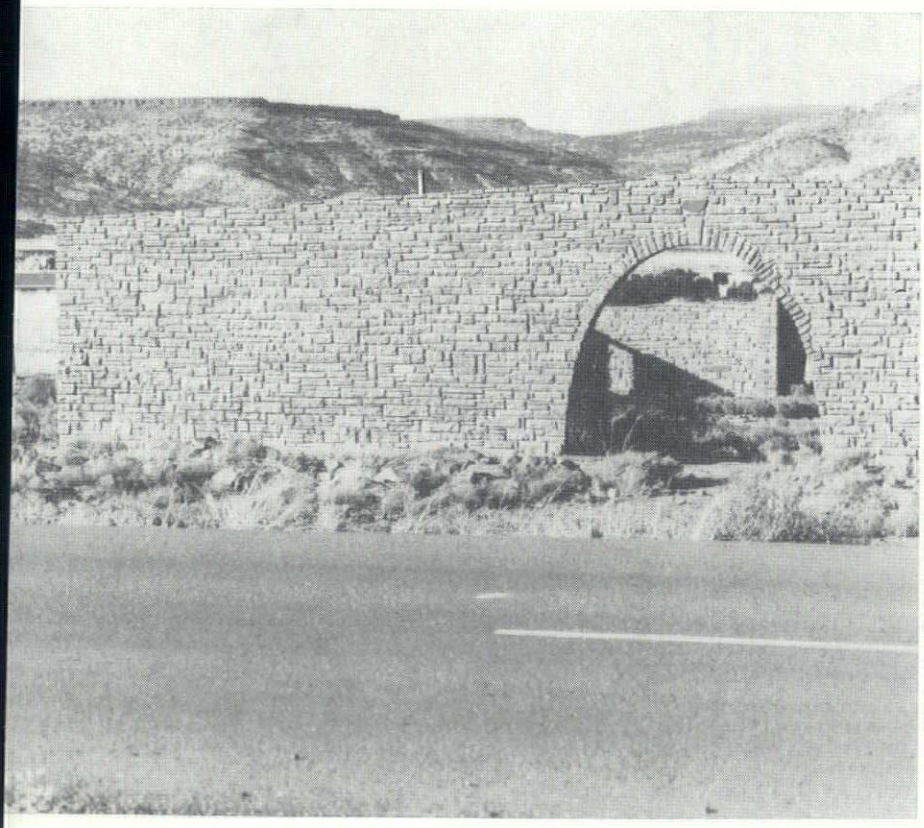
*Jake Abraham and Lawrence Sarracino at the Old Laguna site.*

*Left:*

*Rest stop on Interstate 40 near Old Laguna. Built by Heselden Construction Co. for the State Highway Department with stones quarried from the Laguna enterprise.*

*And below:*

*Laguna stones in the walls of the future Lee Marmon house near Old Laguna.*



and palletted, and ready to be shipped to the construction site.

The Keresan Pueblo of Laguna is located in Valencia County, 40 miles west of Albuquerque on Interstate 40. It is a land of valleys surrounded by high plateaus and mesas of black, red, gray and yellow rock formations, southeast of Mount Taylor. Probably founded in the early 1500's, Laguna is thought to be the youngest of the pueblos. It's 404,000 acres provide a homeland for more than 4,000 residents in the six communities of Old Laguna, Paraje, Paguate, Seama, Mesita, and Encinal.

*—Louis Castillo*

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*Louis Castillo graduated in 1969 from the University of New Mexico with a Bachelor of Architecture degree. A native born New Mexican, Mr. Castillo is a designer in the architectural firm of Ferguson, Stevens, Mallory and Pearl.*

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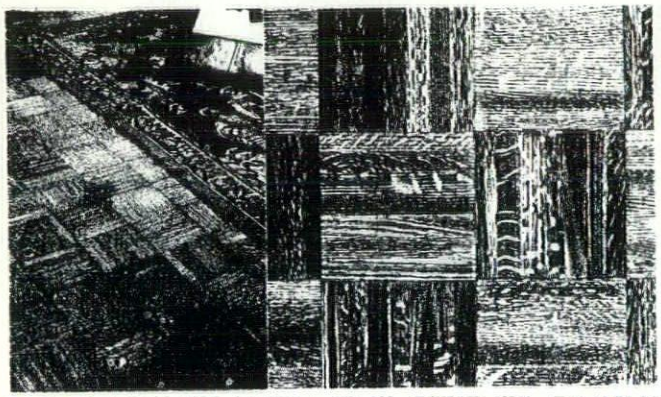

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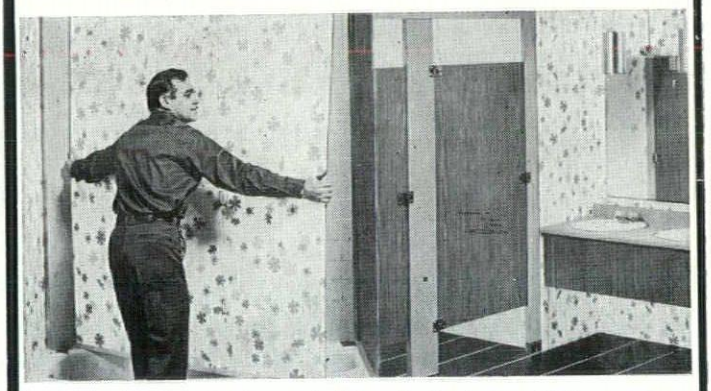

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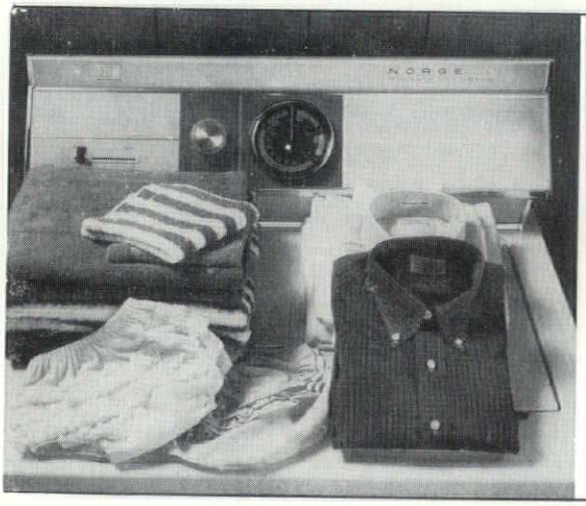


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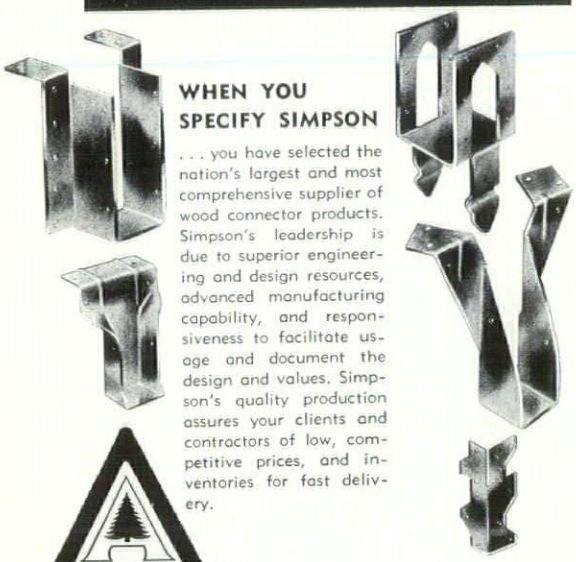

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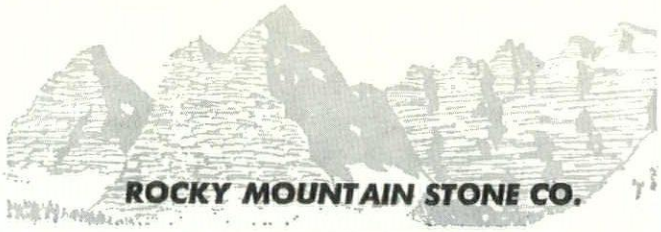

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## INDEX TO FIRMS ADVERTISING IN NMA


Albuquerque Gravel Products Company ..... 21
Albuquerque Lumber Co. ..... 20
Albuquerque Testing Laboratory ..... 21
Atlas Building Products Co. ..... 4
Builders Block & Stone Co., Inc. ..... 4
Carroll Co., Bill C. ..... 21
Concrete Systems, Inc. ..... 20
CSA Foam Systems, Inc. ..... 22
Cummings Co., Inc., Don J. ..... 2
Design Interiors, Inc. ..... 19
Dover/Hunter-Hayes Company ..... 8
El Rey Stucco Co. ..... 19
Featherlite Corporation Tile Co. ..... 6
Frontier Roofing Co. ..... 20
Hanley Paint Mfg. Co., Inc. ..... 20
Hydro Conduit Corp. ..... 24
Keyson Applied Coatings, Inc. ..... 23
Kinney Brick Company, Inc. ..... 22
Landes, Zachary & Peterson Co. ..... 21
Lumber Merchandisers Association ..... 23
Mason Contractors Association of New Mexico ..... 10
McGill, Geo. B. ..... 9
New Mexico Marble and Tile Co. ..... 18
Prestressed Concrete Products, Inc. ..... 6
Public Service Co. of New Mexico ..... 8
Rocky Mountain Stone Co. ..... 22
San Valle Tile Kilns ..... 5
Santa Fe Builders Supply Co. ..... 18
Southern Union Gas Co. ..... 19
Southwest Vermiculite Co. ..... 7
Stryco Sales, Inc. ..... 18
University Book Store ..... 7
Wellborn Paint Mfg. Co. ..... 6
Whiting Co., Inc., Donald G. ..... 5